

Date: Wednesday, 1/23/2008 11:39:38 AM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : SHUT-OFF VALVE SHAFT
Job Number : 36931	
Estimate Number : 12190	
P.O. Number :	Part Number : D34701
This Issue : 1/23/2008 S.O. No. :	Drawing Number : D3470 REV.A
Prsht Rev. : NC	Project Number : N/A
First Issue : 1/1 Type : MACHINED PARTS	Drawing Revision : A
Previous Run : 35811	Material :
Written By :	Due Date : 2/10/2008 Qty: 5 Um: Each
Checked & Approved By : <u>JF 080123</u>	
Comment : est rev A 06.04.20 new issue EC	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	M303R0250	303 Round Bar 0.250"
-----	-----------	----------------------



Comment: Qty.: 0.6825 f(s)/Unit Total: 3.4125 f(s)

AISI 303 Round Bar 0.250"

batch: M106027J.F. 08/01/27 (5)

2.0	BAND SAW	BAND SAW
-----	----------	----------



Comment: BAND SAW

Cut blank 7.80" long

J.F. 08/01/27 (5)

3.0	LATHE CONV.	CONVENTIONAL LATHE
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Comment: CONVENTIONAL LATHE

1-Turn chamfer and face ends as per dwg D3470

J.F. 08/01/27 (5)

4.0	MILLING CONV.	CONVENTIONAL MILLING MACHINE
-----	---------------	------------------------------



Comment: CONVENTIONAL MILLING MACHINE

1- Mill FLATS as per dwg D3470 using DT8990A

2-DRILL HOLES USING DT8990B

3-Deburr as per dwg D3470

J.F. 08/01/27 (5)

5.0	QC#2	INSPECT WORK TO CURRENT STEP
-----	------	------------------------------



Comment: INSPECT WORK TO CURRENT STEP.

J.F. 08/01/27 (5)S.F. 08/01/28 (5)

QC#2 Second Check  
08-01-2008

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA: AD Date: 08/01/09  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 1/23/2008 11:39:38 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHUT-OFF VALVE SHAFT

Job Number: 36931

Part Number: D34701

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 97

8/1/28 50 (5X)

7.0

QC21

FINAL INSPECTION/W/O RELEASE



(5)

Comment: FINAL INSPECTION/W/O RELEASE

2008/01/29

Job Completion



2008/1/28  
W

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

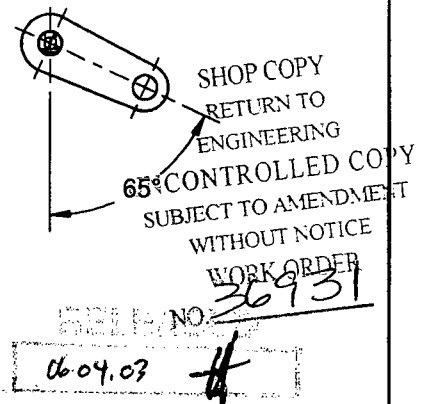
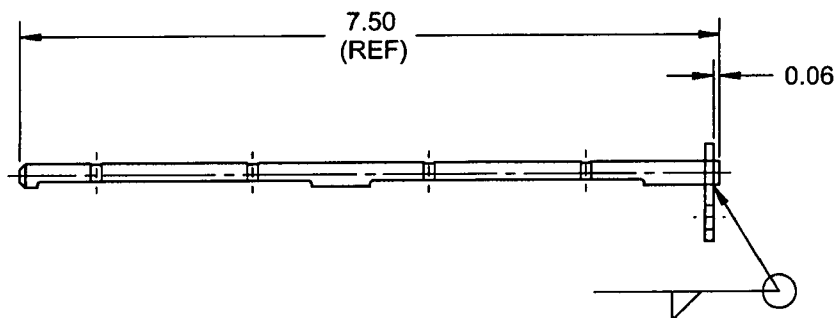
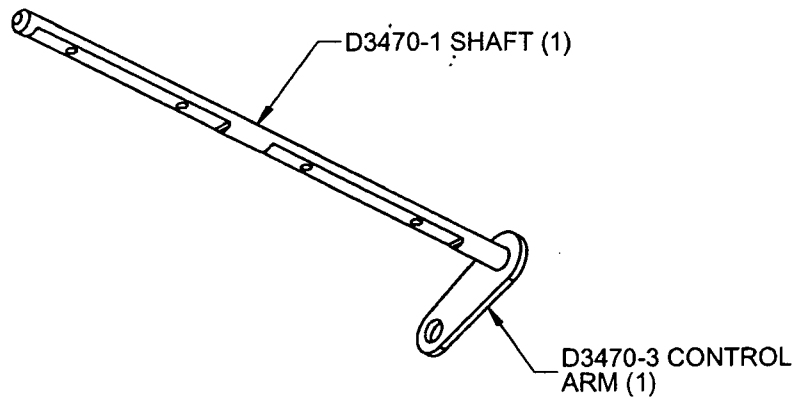
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN B	DRAWN BY B	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED H	APPROVED H	DRAWING NO. D3470	REV. A SHEET 1 OF 4
DATE 05.12.14		TITLE SHUT-OFF VALVE SHAFT	SCALE 1:2
A	05.12.14	NEW ISSUE	



### D3470-041 SHUT-OFF VALVE SHAFT

#### NOTES:

- 1) WELD PER DART QSI 004
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

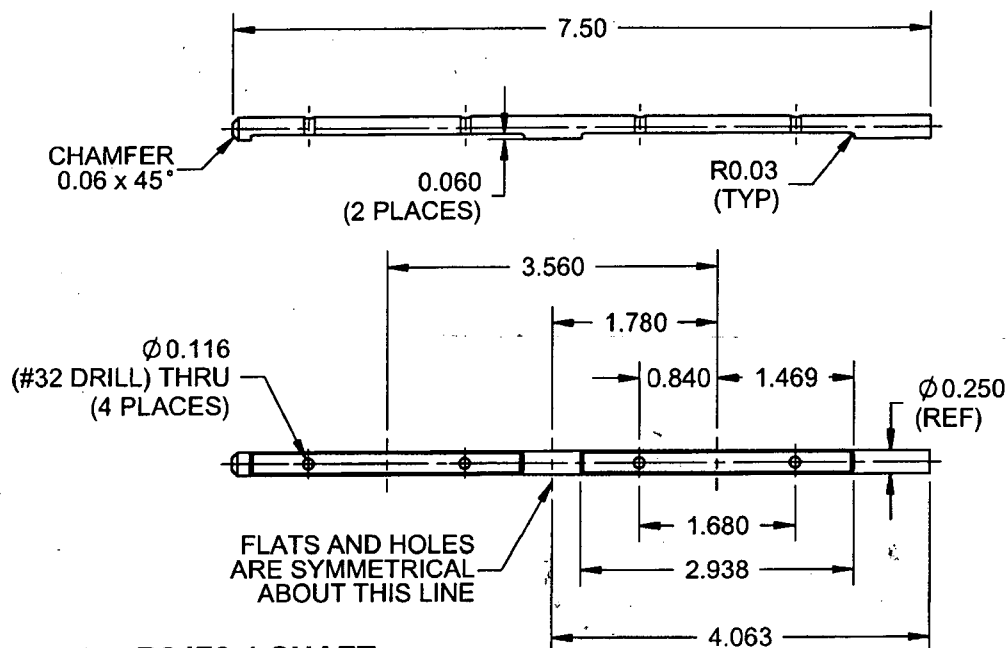
QTY -041	P/N	DESCRIPTION
X	D3470-041	SHUT-OFF VALVE SHAFT
1	D3470-1	SHAFT
1	D3470-3	CONTROL ARM

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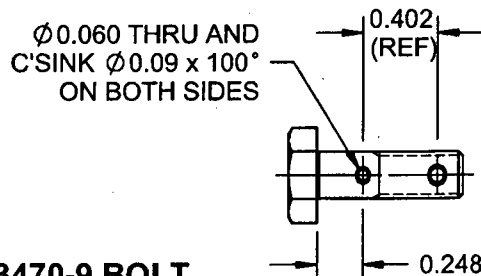
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CHECKED <i>H</i>	APPROVED <i>H</i>	DRAWING NO. <b>D3470</b>	REV. A SHEET 2 OF 4
DATE <b>05.12.14</b>		TITLE <b>SHUT-OFF VALVE SHAFT</b>	SCALE 1:2

**D3470-1 SHAFT**

- 1) MATERIAL: AISI 303 STAINLESS STEEL 0.25 ROUND BAR  
(REF. DART SPEC. M303R0.250)

**D3470-9 BOLT**  
SCALE 1:1

- 1) MAKE FROM AN4-6 BOLT

**NOTES:**

- 2) FINISH: NONE  
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) ALL DIMENSIONS ARE IN INCHES  
5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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NO. 36931

06.04.03 *H*

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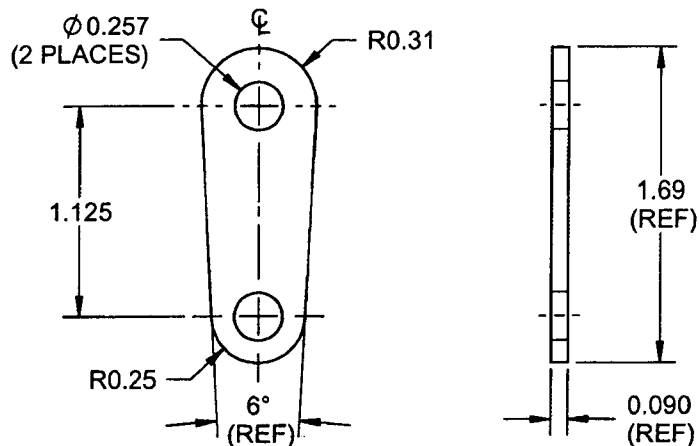
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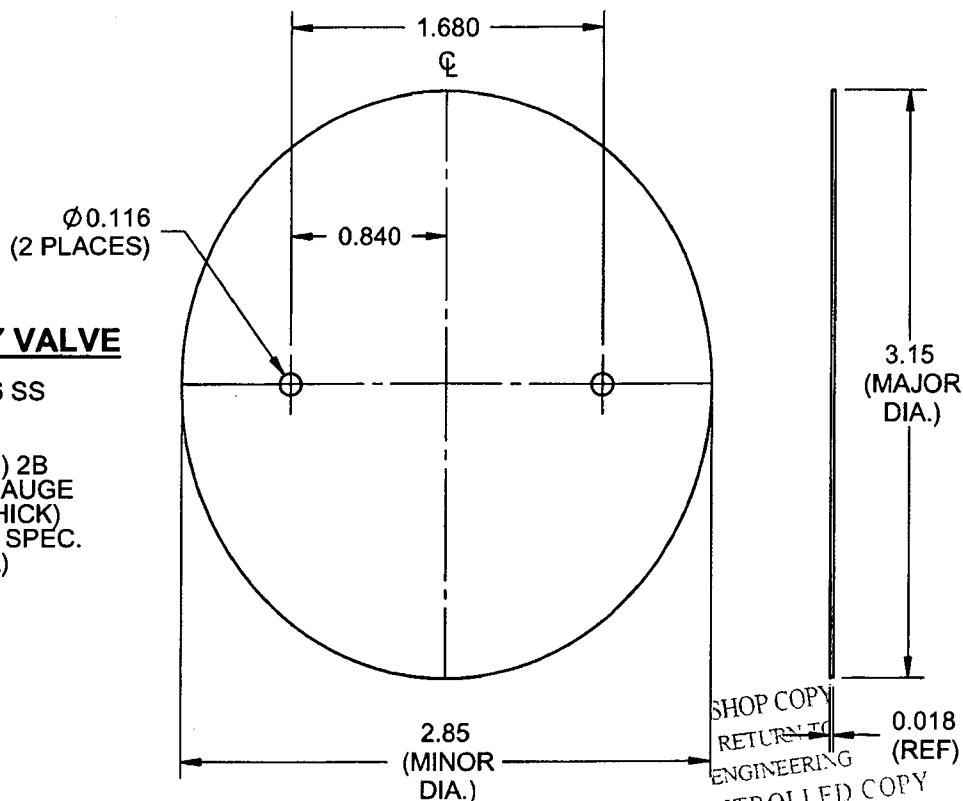
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DATE <b>05.12.14</b>		TITLE <b>SHUT-OFF VALVE SHAFT</b>	SCALE 1:1

**D3470-3 CONTROL ARM**

- 1) MATERIAL: AISI 304/316 SS SHEET PER  
MIL-S-5019 (ANNEALED) 2B  
FINISH 13 GAUGE SS  
(0.090 THICK)  
(REF. DART SPEC. M304S13GA)

**D3470-5 BUTTERFLY VALVE**

- 1) MATERIAL: AISI 304/316 SS  
SHEET PER  
MIL-S-5019  
(ANNEALED) 2B  
FINISH 26 GAUGE  
SS (0.018 THICK)  
(REF. DART SPEC.  
M304S26GA)

**NOTES:**

- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

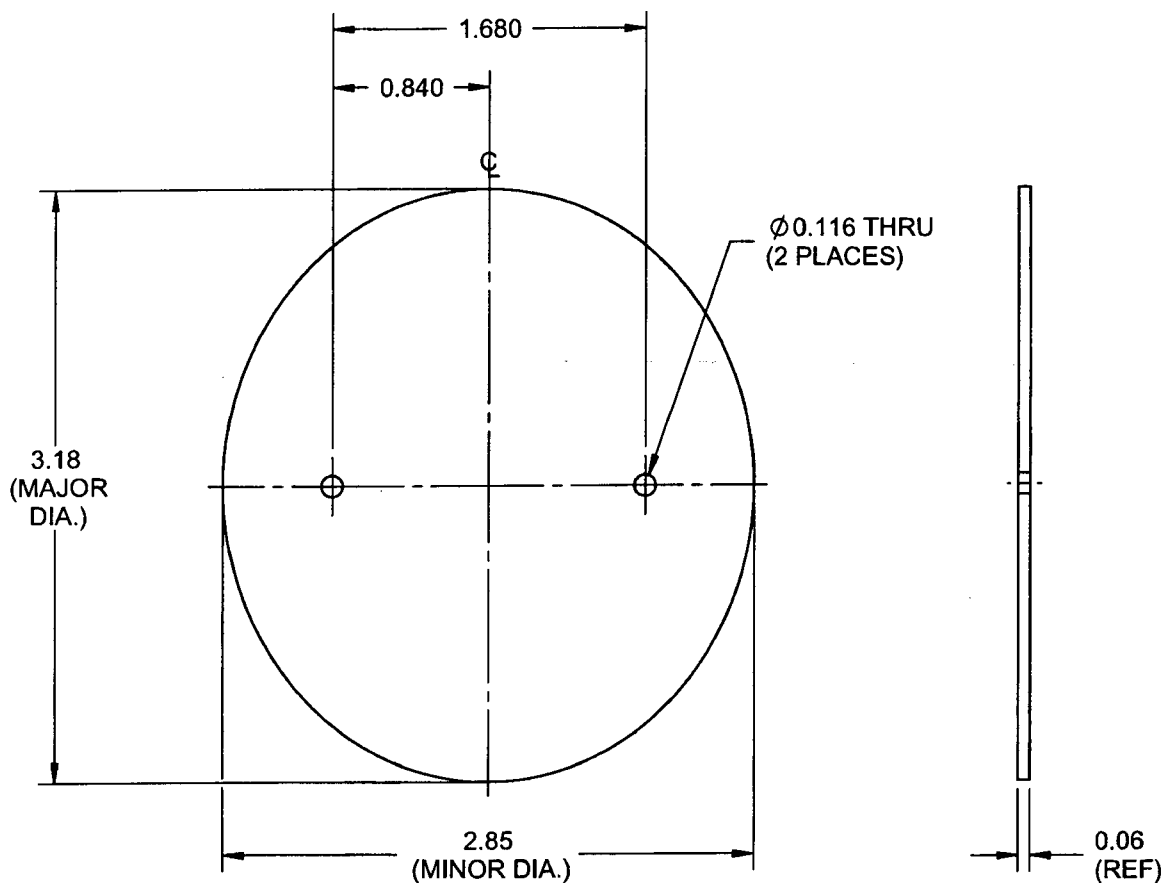
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DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3470	REV. A SHEET 4 OF 4
DATE 05.12.14		TITLE SHUT-OFF VALVE SHAFT	SCALE 1:1



### D3470-7 BUTTERFLY VALVE SEAL

#### NOTES:

- 1) MATERIAL: RED (OR GRAY) 60 DUROMETER HI-TEMPERATURE SILICONE SHEET, 0.063 THICK (REF. DART SPEC. M-SIL60-S.063)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

RELEASED  
06-04-03 *[Signature]*

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DART AEROSPACE LTD	Work Order:	36931
Description: shaft	Part Number:	03470-1
Inspection Dwg: 03470 Rev: A		Page 1 of 1

# FIRST ARTICLE INSPECTION CHECKLIST



## First Article

## Prototype

[illegible]

Measured by:	J. F.	Audited by:		Prototype Approval:	
Date:	08/01/26	Date:		Date:	

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/RF	